7 fastest growing tech jobs in the USA

In this blog, we shall look at the top 7 fastest-growing tech jobs in 2023. As we happen to set foot in 2023 in a matter of few days, let us look at some of the job roles which would continue to dominate the tech terrain in the coming year. We shall look at the roles and responsibilities of these job positions as well as seek to understand the reason behind them being one of the fastest-growing tech jobs in the USA.

Fastest Growing Jobs in Tech

Data Scientist

The position of a Data Scientist is considered to be one of the fastest-growing tech jobs and this claim is backed by data from the past as well as from the predictions made for the future. Data reveals that there has been an overwhelming upsurge of 344% in the demand for these professionals since 2013. Consequently, there has been an average increase of 29% in the demand for Data Scientists each year. Moving to the future, as per the report by the Bureau of Labor Statistics (BLS), the future growth of this profession is expected to be at 22% through 2030. This implies that it should definitely be counted as one of the

fastest-growing tech jobs in 2023 that one should aspire for.

So what does a Data Scientist do?

A Data Scientist is proficient in data handling through cleaning, exploring, and analyzing it. They are responsible for identifying trends and patterns in their analysis and consequently build models for the business as well as suggest relevant recommendations for the future. With advancements in the field of Machine Learning and Artificial Intelligence, Data Scientists have come to increasingly make use of ML for analyzing business decisions.

Skills needed:

- Knowledge of coding in different programming languages as well as of ML algorithms

- Expertise in creating business models

- Is comfortable with unstructured data

- Excellent mathematical and statistical skills

- Is receptive to business issues and problems and is capable of coming up with solutions for resolving the same

BlockChain Engineer

Terms like Cryptocurrency, Blockchain Technology, and Non-Fungible tokens (NFTs), did emerge as raging buzzwords through 2021 and are likely to be at the forefront in years to come. Transactions involving cryptocurrencies or NFTs are facilitated through Blockchain technology. Moreover, they involve huge sums of money and as such ensuring its security is a must for safeguarding the financial assets of individuals across the globe. This is guaranteed through the expertise of Blockchain Engineers who help in designing the blockchain architecture and also monitoring its security. The creation of decentralized apps along with smart contracts by Blockchain Developers is only made possible by making use of the web architecture which is developed by the Blockchain Engineer. Moreover, the increasing relevance of the Internet of Things (IoT) has been responsible for pushing the job role of a Blockchain Engineer to the status of being one of the fastest-growing jobs in tech.

Skills needed:

- Knowledge of programming languages as well as expertise in working with codebases

- Understanding of relevant technologies like Hyperledger and R3, along with Cryptocurrencies

- Working experience on open-source projects

- Well-versed with crypto functions, libraries, and security protocol stacks

- Knowledge of data structures and algorithms

Machine Learning and AI

In this section, we shall talk about specialists in two of the highest fast-evolving tech fields: Machine Learning and Artificial Intelligence. These individuals are primarily responsible for developing programs and machines which help in imitating human action by seeking to understand how the human mind works. In fact, data reveals that the AI market size is contemplating an expansion of USD 4781 million at a CAGR of 48.4%. Clearly, it is one of the fastest-growing tech jobs in 2023.

Developing complex algorithms which help in providing machines the ability to think as humans is the core area of concern for these individuals. AI in itself is composed of Learning, Perception, Reasoning, and Problem Solving. AI engineers help in implanting the AI model within the business organization, in automating infrastructure for the Data Scientists, and in transforming ML models into an API that would facilitate interaction with other applications.

Skills needed:

- Excellent mathematical and statistical skills

- Deep understanding of Neural Networks, Machine Learning, and Deep Learning

- Proficiency in programming languages, along with technologies like TensorFlow

- Data modeling and software engineering

- Knowledge of Natural Language Processing

- Development of REST APIs

Cloud Architect

The spending of companies on public cloud services has soared tremendously over the years. Owing to the same, there has been a steep surge in demand for professionals who are proficient in overseeing the cloud computing stratifies of an organization. Herein comes the role of Cloud Architects and their valued demand makes this job role one of the fastest-growing jobs in tech. Cloud Architects have to fulfill a number of responsibilities in their professional capacity, right from planning cloud adoption to designing cloud applications through overseeing and controlling the cloud. These professionals are well acquainted with the needs of the organization and use their expertise in suggesting the best possible cloud solutions (private, public, or hybrid) to the top executives. They are responsible for designing the cloud strategy for the company, which is at once, flexible and scalable.

Skills needed:

- Knowledge of the latest cloud platforms and integration tools

- Proficient in prominent programming languages

- Workable experience with Virtual Private Cloud (VPC), CloudFront (CDN), and Route 53(DNS)

- Understanding of the fundamentals of data storage as well as cloud-specific patterns

- In terms of soft skills, they need to have excellent management, communication, and leadership skills

Information Security Analyst/Engineer

Information Security Analysts or Engineers are responsible for protecting and safeguarding processed data which is in the form of information. They guarantee protection to information systems in order to prevent it from being exposed to disclosure, modification, disruption, destruction and unauthorised access. Given the rising frequency and magnitude of threats and attacks directed towards the virtual or the cyber space; the demand for Security professionals have increased by leaps and bounds. Information Security Analysts or Engineers have even a far greater scope of responsibilities than a Cyber Security Analyst as the former happens to deal with all sorts of computer related crime, ensuring the sanctity of the entire

security landscape; while the latter deals with only cyber related crimes and ensures the sanctity of the cyber realm. It is no wonder therefore that the position of an Information Security Analyst/Engineer has evolved and is going to be one of the fastest growing tech jobs 2023.

Skills needed:

- Deep knowledge of networks and computer systems

- Knowledge of Unix, LINUX and Java systems, along with SIEM, SSH and SSL systems

- Technical acumen and critical thinking skills

The roles and responsibilities Information Security professionals are often confused with those of Cyber Security professionals. This is largely because of the overlap between the field of Cyber Security and Information Security. If you wish to read in detail on the issue of the difference between the two domain, do read our blog on "**Cyber Security vs. Information Security: A Comparative Analysis**"

Full Stack Developer

As per the findings by the United States Bureau of Labor Statistics, it is estimated that there will be approximately 8.53 million open job positions for Full Stack Developers

by 2024. This clearly implies that it is one of the fastest growing tech jobs with immense potential for the future. A Full Stack Developer can be seen as an all-rounder who happens to be proficient in front-end as well as back-end programming. Simultaneously, they also remain involved in each and every phase of the development, right from planning through the final product.

Since web development entails the efforts of both a front-end as well as a back-end developer; a full stack developer happens to be someone who is capable of developing server as well as client software. While the front end is the part with which the users interact; the back end is the part wherein the actual working mechanism takes place, detailing out how the system functions.

Skills needed:

- Proficiency in designing and developing API
- Knowledge of database technologies
- Well versed in the fundamentals of web development
- Expertise in coding and scripting
- Understanding of programming languages like AngularJS, MangoDB, and Express.js

DevOps Engineer

Frictions between the Development and the Operations team has been a difficult issue to resolve for organisations for a long time. This was sought to be resolved in the DevOps model which tried to bring the two departments together. One of the professional who happens to play a key role in this setup, is the DevOps Engineer who has overlapping responsibilities vis-a-vis both the departments. In fact, LinkedIn branded the position of a DevOps Engineer as one of the most recruited job roles in 2018. Moreover, there has been an overwhelming adoption of the DevOps model by companies cutting across sectors. This has made the position of a DevOps Engineer, one of the fastest growing jobs in tech.

Within the development team, these individuals are involved in network and deployment operations; while within the operations team, these individuals are largely concerned with application development.

Skills needed:

- Knowledge of network and deployment operations

- Proficiency in programming languages, coding and scripting

- Deep understanding of Linux and Unix Administration systems

- Working experience with DevOps tools like Jenkins, Git and so on

Conclusion

The dynamism which characterizes the tech industry, is one of the prime reasons for accounting for overwhelming importance of certain job roles in response to the latest innovations in technology. Moreover, since this technology itself remains in a state of flux, these job roles too keep growing. This blog provides an extremely precise list of job roles which are some of the fastest growing tech jobs. However, the list is by no means exhaustive. Diverse tech fields, ranging from Cyber Security, to Data Analytics, to Software Testing, to Web Development, through Business Intelligence, have all come to dominate the tech landscape and as such, abound in some of the fastest growing jobs in tech.

The tech industry is definitely one of the most lucrative sectors in terms of holding immense career prospects. Seeking to initiate one's journey in the tech field is surely a wise choice. Certain avenues can help you in not only becoming tech ready, but also does so at your convenience and in a matter of months. **Syntax Technologies**, is one such top notched bootcamp which help you realise your tech dream in the surest way possible. **Read more about our exclusive tech courses on Data Analytics and**

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